

State of Kansas

Department of Agriculture  
Division of Water Resources

Permanent Administrative  
Regulations

Article 23.—SOUTHWEST KANSAS  
GROUNDWATER MANAGEMENT DISTRICT NO. 3

**5-23-4. Safe yield: high plains aquifer.** (a) Except as set forth in subsection (b), the approval of all applications for a permit to appropriate water from the high plains aquifer, and the approval of all applications for a change in the point of diversion if the diversion works have not been completed under the original approved application, shall be processed in accordance with K.A.R. 5-3-9, K.A.R. 5-3-10, and K.A.R. 5-3-11. For the purpose of applying K.A.R. 5-3-11 (d)(3) within the boundaries of the district, the percentages of the calculated recharge that shall be considered to be available for appropriation shall be determined using the following table:

Percent of Calculated Recharge Available for Appropriation	River Basin
(A) 75 %	Arkansas
(B) 75 %	Cimarron River
(C) 75 %	Crooked Creek
(D) 75 %	North Fork Cimarron River

(b) This regulation shall not apply to the following:

- (1) Wells for domestic use;
- (2) wells authorized by temporary permits;
- (3) wells authorized by term permits of fewer than five years;
- (4) an application to appropriate 15 acre-feet of water or less if all of the following conditions are met:

(A) The safe yield has been exceeded but the sum of the annual quantity requested by the proposed appropriation and the total quantities authorized by prior permits because of this exemption does not exceed 15 acre-feet in a circle with a radius of ½ mile surrounding the proposed point of diversion.

(B) Well spacing criteria have been met.

(C) Approval of the application will not authorize an additional quantity of water out of an existing well authorized by a nondomestic approval of application or water right, which would result in a total combined annual quantity of water authorized from that well in excess of 15 acre-feet.

(D) All other criteria for processing a new application have been met.

(c) Each application filed to request a well within the area described in subsection (e) shall include a driller's log, an electric log, and a laboratory analysis from a state-certified laboratory of the chloride concentrations in samples taken from whatever depths are necessary to determine the vertical location where the chloride concentrations exceed 250 milligrams per liter (mg/l). The samples shall be taken from a well located within a 300-foot radius of the proposed well. A state-certified laboratory analysis shall be used to determine the vertical location of the chloride concentrations exceeding 250 mg/l.

(d) Each well constructed in the area described in subsection (e) shall be constructed in a manner that prevents the movement of water containing 250 mg/l of chlorides beyond its naturally occurring condition.

(e) The level of chlorides may exceed 250 mg/l in the following areas:

(1) The west ½ of townships 33, 34, and 35 south, range 28 west in Meade County, Kansas;

(2) the east ½ of township 33 south, range 29 west in Meade County, Kansas;

(3) all of townships 34 and 35 south, ranges 29 and 30 west in Meade County, Kansas; and

(4) all of townships 34 and 35 south, ranges 31 and 32 west and the east ½ of townships 34 and 35 south, range 33 west in Seward County, Kansas. (Authorized by K.S.A. 82a-706a and 82a-1028; implementing K.S.A. 82a-706a, K.S.A. 2002 Supp. 82a-711, and K.S.A. 2002 Supp. 82a-1028; effective May 1, 1981; amended May 1, 1986; amended Aug. 28, 1989; amended Sept. 22, 2000; amended Nov. 21, 2003.)

**5-23-4a. Criteria for closing townships to new appropriations.** (a) Entire townships shall be closed to further appropriation of water for beneficial use from the high plains aquifer if at least one of the following conditions exists:

(1) The entire township is fully appropriated.

(A) A township shall be considered to be fully appropriated if the aquifer within the township would be depleted by 40 percent or more in 25 years if current vested rights and appropriations are fully exercised and all limitation clauses listed on permits to appropriate water and certificates are in force.

(B) Aquifer depletion shall be calculated using the allowable annual appropriation formula described in subsection (b) with the area of consideration equal to the number of acres within sections of land containing saturated thickness within the township.

(2) The average saturated thickness of the aquifer within the township is 50 feet or less, as set forth in K.A.R. 5-23-15.

(3) The aquifer has been depleted by 20 percent or more since 1950. Depletion since 1950 shall be determined from maps or data, or both, recommended by the board and adopted by the chief engineer by regulation.

(4) Groundwater pumping has lowered the water level of the high plains aquifer, which has diminished the base-flow from the aquifer to the stream and impaired senior domestic surface water rights and other senior surface water rights.

(5) Groundwater pumping in an area has lowered the water level of the freshwater to the point that the issuance of additional approvals of applications will induce water in excess of 250 milligrams per liter chlorides to mix with overlying freshwater, causing contamination of the overlying freshwater.

(b) Except for the types of wells listed in subsection (c), the proposed appropriation, when added to the vested rights, prior appropriation rights, and earlier priority applications, shall not exceed, in 25 years, a calculated rate of depletion of 40 percent of the saturated thickness underlying the area of consideration. For the purpose of

(continued)

analysis, all vested rights, appropriation rights, approvals of applications, and prior unapproved applications shall be considered to be fully exercised, and all limitation clauses on approvals of application and certificates shall be considered to be in force. The allowable annual appropriation shall be calculated using the following formula:

$$\text{Allowable Aquifer Yield} = \frac{0.40\text{AMS}}{25} + \frac{\text{AR}}{12}$$

Allowable aquifer yield = the amount of water, measured in acre-feet, available annually for appropriation from a proposed point of diversion (well).

A = the "area of consideration" shall be equal to the number of acres within sections containing saturated thickness within the township and within the district.

M = the number of feet of average saturated thickness of the high plains aquifer within the township as set forth in K.A.R. 5-23-15.

S = the storage coefficient or a specific yield of 15 percent.

R = average annual recharge and return flow, which shall be one inch per year.

(c) The calculation specified in subsection (b) shall not include the following types of wells:

- (1) Wells for domestic use;
- (2) wells authorized by temporary permits; and
- (3) wells authorized by term permits of fewer than five years. (Authorized by K.S.A. 82a-706a and 82a-1028(o); implementing K.S.A. 82a-1028(n); effective Sept. 30, 1991; amended Sept. 22, 2000; amended Nov. 21, 2003.)

**5-23-4b. Township closures.** (a) The following townships have been determined to meet the criteria in K.A.R. 5-23-4a for closing a township to new appropriations of water from the high plains aquifer; therefore, no new appropriations of water shall be allowed from the high plains aquifer in the following townships, except as described in subsection (b):

County	Township	Range	County	Township	Range
Finney	21	30	Finney	26	31
Finney	21	31	Finney	26	32
Finney	21	32	Finney	26	33
Finney	21	33	Finney	26	34
Finney	21	34	Ford	25	21
Finney	22	30	Ford	25	22
Finney	22	31	Ford	25	23
Finney	22	32	Ford	25	24
Finney	22	33	Ford	25	25
Finney	22	34	Ford	25	26
Finney	23	27	Ford	26	21
Finney	23	28	Ford	26	22
Finney	23	29	Ford	26	23
Finney	23	30	Ford	26	24
Finney	23	31	Ford	26	25
Finney	23	32	Ford	26	26
Finney	23	33	Ford	27	21
Finney	23	34	Ford	27	22
Finney	24	31	Ford	27	23
Finney	24	32	Ford	27	24
Finney	24	33	Ford	27	25
Finney	24	34	Ford	27	26
Finney	25	31	Ford	28	21
Finney	25	32	Ford	28	22
Finney	25	33	Ford	28	23
Finney	25	34	Ford	28	24

County	Township	Range	County	Township	Range
Ford	28	25	Haskell	30	31
Ford	28	26	Haskell	30	32
Ford	29	21	Haskell	30	33
Ford	29	22	Haskell	30	34
Ford	29	23	Kearny	22	35
Ford	29	24	Kearny	22	36
Ford	29	25	Kearny	22	37
Ford	29	26	Kearny	22	38
Grant	27	35	Kearny	23	35
Grant	27	36	Kearny	23	36
Grant	27	37	Kearny	23	37
Grant	27	38	Kearny	23	38
Grant	28	35	Kearny	24	35
Grant	28	36	Kearny	24	36
Grant	28	37	Kearny	24	37
Grant	28	38	Kearny	24	38
Grant	29	35	Kearny	25	35
Grant	29	36	Kearny	25	36
Grant	29	37	Kearny	25	37
Grant	29	38	Kearny	25	38
Grant	30	35	Kearny	26	35
Grant	30	36	Kearny	26	36
Grant	30	37	Kearny	26	37
Grant	30	38	Kearny	26	38
Gray	24	27	Meade	30	26
Gray	24	28	Meade	30	27
Gray	24	29	Meade	30	28
Gray	24	30	Meade	30	29
Gray	25	27	Meade	30	30
Gray	25	28	Meade	31	26
Gray	25	29	Meade	31	27
Gray	25	30	Meade	31	28
Gray	26	27	Meade	31	29
Gray	26	28	Meade	31	30
Gray	26	29	Meade	32	28
Gray	26	30	Meade	32	29
Gray	27	27	Meade	32	30
Gray	27	28	Meade	33	28
Gray	27	29	Meade	33	29
Gray	27	30	Meade	33	30
Gray	28	27	Meade	34	28
Gray	28	28	Meade	34	29
Gray	28	29	Meade	34	30
Gray	28	30	Meade	35	28
Gray	29	27	Meade	35	29
Gray	29	28	Meade	35	30
Gray	29	29	Morton	31	39
Gray	29	30	Morton	31	40
Hamilton	25	42	Morton	31	41
Hamilton	25	43	Morton	31	42
Hamilton	26	39	Morton	31	43
Hamilton	26	40	Morton	32	39
Hamilton	26	41	Morton	32	40
Hamilton	26	42	Morton	32	41
Hamilton	26	43	Morton	32	42
Haskell	27	31	Morton	32	43
Haskell	27	32	Morton	33	41
Haskell	27	33	Morton	33	42
Haskell	27	34	Morton	33	43
Haskell	28	31	Morton	34	42
Haskell	28	32	Morton	34	43
Haskell	28	33	Morton	35	39
Haskell	28	34	Morton	35	40
Haskell	29	31	Morton	35	41
Haskell	29	32	Morton	35	42
Haskell	29	33	Morton	35	43
Haskell	29	34	Seward	31	31

County	Township	Range	County	Township	Range
Seward	31	32	Stanton	29	40
Seward	31	33	Stanton	29	41
Seward	31	34	Stanton	29	42
Seward	32	31	Stanton	29	43
Seward	32	32	Stanton	30	39
Seward	32	33	Stanton	30	40
Seward	32	34	Stanton	30	41
Seward	34	31	Stanton	30	42
Seward	34	32	Stanton	30	43
Seward	34	33	Stevens	31	35
Seward	35	31	Stevens	31	36
Seward	35	32	Stevens	31	37
Seward	35	33	Stevens	31	38
Stanton	27	39	Stevens	31	39
Stanton	27	40	Stevens	32	35
Stanton	27	41	Stevens	32	36
Stanton	27	42	Stevens	32	39
Stanton	27	43	Stevens	33	35
Stanton	28	39	Stevens	33	38
Stanton	28	40	Stevens	34	35
Stanton	28	41	Stevens	34	38
Stanton	28	42	Stevens	35	38
Stanton	28	43	Stevens	35	39
Stanton	29	39			

(b) The closure of the townships to new appropriations of water from the high plains aquifer as listed in subsection (a) shall not apply to the following:

- (1) Wells for domestic use;
- (2) wells authorized by temporary permits;
- (3) wells authorized by term permits of fewer than five years; and
- (4) wells authorized by an application to appropriate 15 acre-feet of water or less if the following conditions are met:

(A) The allowable aquifer yield has been exceeded, but the sum of the annual quantity requested by the proposed appropriation and the total quantities authorized by prior permits because of this exemption does not exceed 15 acre-feet in a radius of ½ mile surrounding the proposed point of diversion.

(B) Well spacing criteria have been met.

(C) Approval of the application will not authorize an additional quantity of water out of an existing well authorized by a nondomestic approval of application or water right that would result in a total combined annual quantity of water authorized from that well in excess of 15 acre-feet.

(D) All other criteria for processing a new application have been met. (Authorized by K.S.A. 82a-706a and K.S.A. 82a-1028; implementing K.S.A. 82a-706a and K.S.A. 2002 Supp. 82a-1028; effective Sept. 22, 2000; amended Nov. 21, 2003.)

**5-23-5.** (Authorized by K.S.A. 1980 Supp. 82a-1028(o); implementing K.S.A. 1980 Supp. 82a-1028(n); effective May 1, 1981; revoked Nov. 21, 2003.)

David L. Pope  
Chief Engineer  
Division of Water Resources